### Total Fat

#### What It Is

Fat is found in foods from both **plants and animals**. There are **two types** of fat:

- **Saturated fat** is found in higher proportions in **animal products** and is usually **solid** at room temperature.
- **Unsaturated fat**
  - **Monounsaturated and polyunsaturated fats** are found in higher proportions in **plants** and are usually **liquid** at room temperature.
  - **Trans fat** is an unsaturated fat found primarily in **partially hydrogenated oils** (and foods containing these oils) and in small amounts in some animal products. Trans fat is structurally different from unsaturated fat that occurs naturally in plant foods and has **detrimental health effects**.

#### Where It Is Found

**Saturated and trans fats** are found in a variety of foods, including:
- Beef fat (tallow and suet), chicken fat, and pork fat (lard)
- Coffee creamer, cream, and milk (whole and 2% milk)
- Dairy products (such butter and regular/full-fat cheese, cream cheese, and ice cream)
- Desserts and sweets (such as cakes, chocolate candies, cookies, and ice cream)
- Fast food
- Frozen pizza
- Meats and poultry
- Nuts
- Processed meats and poultry products (such as bacon, hot dogs, jerky, luncheon meats, and sausages)
- Ready-to-use frostings
- Refrigerated dough products (such as biscuits and cinnamon rolls)
- Savory snacks (such as chips, crackers, and microwave popcorn)
- Tropical plant oils (such as coconut, palm, and palm kernel oils)
- Vegetable shortening and stick margarine

**Monounsaturated and polyunsaturated fats** are found in a variety of foods, including:
- Avocados
- Fish (such as such as herring, mackerel, salmon, trout, and tuna)
- Mayonnaise and oil-based salad dressings
- Nuts and seeds
- Olives
- Soft margarines (liquid, tub, and spray)
- Vegetable oils (such as canola, corn, olive, peanut, safflower, and soybean oils)

#### What It Does

- Fat provides calories, or “energy,” for the body. Fat also stores energy in excess of what the body needs immediately, and serves as a secondary energy source once calories from carbohydrates are used up. Each gram of fat provides **9 calories**.
- Fat is a basic part of cell membranes and is necessary for proper growth and development.
- Fat helps the body absorb important fat-soluble vitamins (vitamins A, D, E, and K).
- Fat supports key body processes, such as blood clotting, nervous system function, reproduction, and immune response.
- Fat “cushions” internal organs and protects them from being damaged. The fat layer below the skin also insulates the body from heat loss.
- Fat plays a vital role in maintaining healthy skin and hair.
- Fat in food provides taste and consistency and helps you feel full.

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**Nutrition Facts**

<table>
<thead>
<tr>
<th>Serving Size 1 package (272g)</th>
<th>Servings Per Container 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount Per Serving</strong></td>
<td></td>
</tr>
<tr>
<td>Calories</td>
<td>300</td>
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<td>Calories from Fat</td>
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<tr>
<td>% Daily Value*</td>
<td></td>
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<tr>
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<tr>
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</tr>
<tr>
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<tr>
<td>% Daily Value</td>
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<tr>
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<tr>
<td>% Daily Value</td>
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<tr>
<td>Dietary Fiber</td>
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</tr>
<tr>
<td>% Daily Value</td>
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</tr>
<tr>
<td>Sugars</td>
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</tr>
<tr>
<td>Protein</td>
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* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

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<th>2,500</th>
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<tbody>
<tr>
<td>Total Fat</td>
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<td>65g</td>
</tr>
<tr>
<td>Saturated Fat</td>
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<tr>
<td>Cholesterol</td>
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<td>300mg</td>
</tr>
<tr>
<td>Sodium</td>
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<td>2,400mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
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<td>375g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>25g</td>
<td>30g</td>
</tr>
</tbody>
</table>

Fat is one of three **macronutrients** in food that provide calories, or “energy,” for the body. Each gram of fat provides **9 calories**.

http://www.fda.gov/nutritioneducation
Health Facts

- Dietary fat has more than twice the calories per gram as either carbohydrate or protein, so calories from fat can add up quickly.
- Saturated and trans fats can raise the levels of total cholesterol and low-density lipoprotein (LDL or “bad”) cholesterol in the blood – which, in turn, can increase the risk of developing cardiovascular disease. Cardiovascular disease is the leading cause of death in both men and women in the U.S.
- The Dietary Guidelines for Americans recommends consuming less than 10% of calories per day from saturated fat by replacing it with monounsaturated and polyunsaturated fats. The guidelines also recommend keeping the intake of trans fat as low as possible by limiting foods containing partially hydrogenated oils (a source of artificial trans fat).
- To reduce the risk of developing chronic diseases, while maintaining adequate intake of important nutrients, follow these ranges for total fat intake:
  - Adults (ages 19 years and older): 20-35% of calories from fat
  - Older children and adolescents (ages 4 to 18 years): 25-35% of calories from fat
  - Young children (ages 1 to 3 years): 30-40% of calories from fat

Action Steps

For Monitoring Total Fat in Your Diet

Use the Nutrition Facts Label as your tool for monitoring consumption of total fat. The Nutrition Facts Label on packaged foods and beverages shows the amount in grams (g) and the Percent Daily Value (%DV) of total fat in one serving of the food.

The Nutrition Facts Label also lists the types of fat that make up the total fat in a product. This includes the amount in grams (g) per serving of saturated fat and trans fat and the %DV of saturated fat. Food manufacturers may also voluntarily list the amount in grams (g) per serving of monounsaturated fat and polyunsaturated fat.

The Daily Value for total fat is 65 g per day. This is based on a 2,000 calorie diet — your Daily Value may be higher or lower depending on your calorie needs.

- When comparing foods, look at the %DV of total fat. And remember:
  - 5% DV or less of total fat per serving is low
  - 20% DV or more of total fat per serving is high
- Look for sources of saturated fat and trans fat on the ingredient list on a food package. Some examples of ingredients that contain these fats are: beef fat (tallow or suet), butter, chicken fat, cream, partially hydrogenated oil, pork fat (lard), shortening, and tropical oils (such as coconut oil, palm kernel oil, and palm oil).
  Tip: Ingredients are listed in descending order by weight — the closer an ingredient is to the beginning of the list, the more of that ingredient is in the food.
- Choose lean cuts of meats and poultry. Trim or drain fat from meats before or after cooking and remove poultry skin before cooking or eating.
- Try seafood and plant sources of protein (such as soy products and unsalted nuts and seeds) in place of some meats and poultry.
- Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt) or fortified soy beverages for regular/full-fat (whole) dairy products.
- Cook and bake with liquid oils (such as canola and olive oil) instead of solid fats (such as butter, lard, and shortening).
- Try baking, broiling, grilling, and steaming. These cooking methods do not add extra fat.
- Limit desserts, savory snacks, and sweets (such as cakes, chips, chocolate candies, cookies, crackers, ice cream, and microwave popcorn).
- When eating out, ask which fats are being used to prepare your meal. You can also request to see nutrition information, which is available in many chain restaurants.
Monounsaturated and Polyunsaturated Fat

**What They Are**

Monounsaturated and polyunsaturated fats are found in higher proportions in **plants** and **seafood** and are usually **liquid at room temperature**. The exceptions are certain tropical plant oils, such as coconut oil, palm oil, and palm kernel oil (which are high in saturated fat) and partially hydrogenated oils (which contain **trans** fat).

**Where They Are Found**

**Monounsaturated fats** are found in a variety of foods, including:
- Avocados
- Mayonnaise and oil-based salad dressings
- Nuts (such as almonds, hazelnuts, peanuts, and pecans)
- Olives

**Polyunsaturated fats** are found in a variety of foods, including:
- Fish (such as herring, mackerel, salmon, trout, and tuna)
- Mayonnaise and oil-based salad dressings
- Nuts (such as pine nuts and walnuts)
- Seeds (such as pumpkin and sesame seeds)
- Soft margarine (liquid, spray, and tub)
- Vegetable oils (such as canola, olive, peanut, and safflower oils)

**What They Do**

- Like all dietary fats, monounsaturated and polyunsaturated fats provide calories and help the body absorb certain vitamins, cushion and insulate the body, and support many body processes.
- Monounsaturated and polyunsaturated fats contribute vitamin E to the diet.
- Polyunsaturated fat is a source of two essential fats. These fats are considered essential because they are required for normal body functioning, but they cannot be made by the body and must be obtained from food. Essential fats play a role in many body processes, including immune and nervous system function, blood clotting, and blood pressure regulation.
Health Facts

• When eaten in place of saturated fat, monounsaturated and polyunsaturated fats can lower the levels of total cholesterol and low-density lipoprotein (LDL or “bad”) cholesterol in the blood — which, in turn, can reduce the risk of developing cardiovascular disease. Cardiovascular disease is the leading cause of death in both men and women in the U.S.

• The Dietary Guidelines for Americans recommends consuming less than 10% of your calories per day from saturated fat by replacing saturated fat with monounsaturated and polyunsaturated fats.

• Although monounsaturated and polyunsaturated fats can have a beneficial effect on your health, they are still a concentrated source of calories. Therefore, they should be eaten in place of saturated fat (rather than added to the diet) while staying within recommended limits for calories and total dietary fat.

Action Steps

For Replacing Saturated Fat with Monounsaturated and Polyunsaturated Fats in Your Diet

Use the Nutrition Facts Label as your tool for replacing saturated fat with monounsaturated and polyunsaturated fats. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) and the Percent Daily Value (%DV) of total fat and saturated fat in one serving of the food.

Food manufacturers may voluntarily list the amount in grams (g) per serving of monounsaturated fat and polyunsaturated fat on the Nutrition Facts Label (under Total Fat), but they are required to list monounsaturated fat and polyunsaturated fat if a statement is made on the package labeling about the health effects or the amount of monounsaturated fat or polyunsaturated fat (for example, “high” or “low”) contained in the food.

☐ Cook and bake with liquid oils instead of solid fats (such as butter, lard, and shortening).

☐ Choose oils that are higher in monounsaturated and polyunsaturated fats (such as sunflower oil and olive oil), and avoid oils that are higher in saturated fat (such as coconut, palm, and palm kernel oils).

☐ Switch from stick margarine to soft margarine (liquid, spray, or tub).

☐ Try fish and plant sources of protein (such as soy products and unsalted nuts and seeds) in place of some meats and poultry.

☐ Sprinkle slivered nuts on salads instead of bacon bits, or snack on a small handful of unsalted nuts or seeds rather than chips or salty snack foods.

☐ Instead of using creamy salad dressings, make your own flavorful dressings with vinegar and oil (such as flaxseed, olive, or sesame oils).

☐ When eating out, ask which fats are being used to prepare your meal. You can also request to see nutrition information, which is available in many chain restaurants.
### Saturated Fat

#### What It Is

Saturated fat is found in higher proportions in animal products and is usually **solid at room temperature**. The exceptions are seafood (which is low in saturated fat) and certain tropical plant oils, such as coconut oil, palm oil, and palm kernel oil (which are high in saturated fat).

The human body makes more saturated fat than it needs — so it is not necessary to get saturated fat from food.

#### Where It Is Found

Saturated fat is found in a variety of foods, including:

- Beef fat (tallow and suet), chicken fat, and pork fat (lard)
- Cream and milk (whole and 2% milk)
- Dairy products (such as butter and regular/full-fat cheese, cream cheese, and ice cream)
- Dairy desserts (such as ice cream, other frozen desserts, and puddings)
- Grain-based desserts (such as brownies, cakes, cookies, doughnuts, pastries, pies, and sweet rolls)
- Fast food
- Meats and poultry
- Nuts
- Processed meat and poultry products (such as bacon, hot dogs, jerky, luncheon meats, and sausages)
- Tropical plant oils (such as coconut, palm, and palm kernel oils)
- Savory snacks (such as chips, crackers, and microwave popcorn)
- Sweets (such as chocolate candies)
- Vegetable shortening and stick margarine

#### What It Does

Like all dietary fats, saturated fat provides calories and helps the body absorb certain vitamins, cushions and insulates the body, and supports many body processes.

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**Saturated Fat can increase the risk of developing cardiovascular disease.**

**Saturated fat is a nutrient to get less of.**
Health Facts

• Most Americans exceed the recommended limits for saturated fat in the diet.
• Saturated fat can raise the levels of total cholesterol and low-density lipoprotein (LDL or “bad”) cholesterol in the blood — which, in turn, can increase the risk of developing cardiovascular disease. Cardiovascular disease is the leading cause of death in both men and women in the U.S.
• The Dietary Guidelines for Americans recommends consuming less than 10% of calories per day from saturated fat by replacing saturated fat with monounsaturated and polyunsaturated fats while staying within recommended limits for calories and total dietary fat.

Action Steps

For Reducing Saturated Fat in Your Diet

Use the Nutrition Facts Label as your tool for reducing consumption of saturated fat. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) and the Percent Daily Value (%DV) of saturated fat in one serving of the food.

The Daily Value for saturated fat is less than 20 g per day. This is based on a 2,000 calorie diet — your Daily Value may be higher or lower depending on your calorie needs.

☐ When comparing foods, choose foods with a lower %DV of saturated fat. The goal is to get less than 100% of the Daily Value for saturated fat each day. And remember:
  • 5% DV or less of saturated fat per serving is low
  • 20% DV or more of saturated fat per serving is high

☐ Look for sources of saturated fat on the ingredient list on a food package. Some examples of ingredients that contain saturated fat are: beef fat (tallow and suet), butter, chicken fat, cream, pork fat (lard), shortening, and tropical plant oils (such as coconut oil, palm oil, and palm kernel oil).

  Tip: Ingredients are listed in descending order by weight — the closer an ingredient is to the beginning of the list, the more of that ingredient is in the food.

☐ Choose lean cuts of meats and poultry. Trim or drain fat from meats before or after cooking and remove poultry skin before cooking or eating.

☐ Try seafood and plant sources of protein (such as beans and peas, soy products, and unsalted nuts and seeds) in place of some meats and poultry.

☐ Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt), or fortified soy beverages for regular/full-fat (whole) dairy products.

☐ Switch from stick margarine to soft margarine (liquid, spray, or tub).

☐ Cook and bake with liquid oils (such as canola and olive oil) instead of solid fats (such as butter, lard, and shortening).

☐ Try baking, broiling, grilling, or steaming. These cooking methods do not add extra fat.

☐ Instead of using creamy salad dressings, make your own flavorful dressings with vinegar and oil (such as flaxseed, olive, or sesame oils).

☐ Limit dairy and grain-based desserts, savory snacks, and sweets (such as cakes, chips, chocolate candies, cookies, crackers, ice cream, and puddings).

☐ Consume smaller portions of foods and beverages that are higher in saturated fat or consume them less often.

☐ When eating out, ask which fats are being used to prepare your meal. You can also request to see nutrition information (available in many chain restaurants), and then choose options that are lower in saturated fat.
### Nutrition Facts

**Serving Size** 1 package (272g)  
**Servings Per Container** 1  

<table>
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<th>Amount Per Serving</th>
<th>Calories from Fat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong></td>
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</tr>
<tr>
<td><strong>Total Fat</strong></td>
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</tr>
<tr>
<td><strong>Saturated Fat</strong></td>
<td>1.5g 8%</td>
</tr>
<tr>
<td><strong>Trans Fat</strong></td>
<td>0g</td>
</tr>
<tr>
<td><strong>Cholesterol</strong></td>
<td>30mg 10%</td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td>430mg 18%</td>
</tr>
<tr>
<td><strong>Total Carbohydrate</strong></td>
<td>55g 18%</td>
</tr>
<tr>
<td><strong>Dietary Fiber</strong></td>
<td>6g 24%</td>
</tr>
<tr>
<td><strong>Sugars</strong></td>
<td>23g</td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td>14g</td>
</tr>
</tbody>
</table>

Vitamin A          80%  
Vitamin C          35%  
Calcium            6%  
Iron               15%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

<table>
<thead>
<tr>
<th>Calories:</th>
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<td>Total Carbohydrate</td>
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</tr>
<tr>
<td>Dietary Fiber</td>
<td>25g</td>
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</tr>
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**Trans Fat**

### What It Is

Trans fat is an unsaturated fat, but it is structurally different than unsaturated fat that occurs naturally in plant foods. Trans fat has **detrimental health effects** and is not essential in the diet.

There are **two sources** of trans fat:

- **Trans fat formed naturally** – this type of trans fat is produced in the gut of some grazing animals (such as cattle and sheep).
- **Trans fat formed artificially during food processing** – this type of trans fat is created during a process called “partial hydrogenation” in which hydrogen is added to liquid vegetable oil to make it more solid, and therefore more resistant to becoming spoiled or rancid. The process generally does not make the oil completely solid, resulting in “partially” hydrogenated oils.

### Where It Is Found

**Trans fat formed naturally** is found in small amounts in some animal products, such as meats and dairy products.  
**Trans fat formed artificially during food processing** is found in partially hydrogenated oils used in a variety of foods, including:

- Coffee creamer  
- Fast food  
- Frozen pizza  
- Grain-based desserts (such as cakes, cookies, and frozen pies)  
- Ready-to-use frostings  
- Refrigerated dough products (such as biscuits and cinnamon rolls)  
- Savory snacks (such as crackers and microwave popcorn)  
- Vegetable shortening and stick margarine

### What It Does

**Partially hydrogenated oils** are used by food manufacturers to improve the texture, shelf life, and flavor stability of foods. Partially hydrogenated oils should not be confused with “fully hydrogenated oils,” which are solid fats that contain very low levels of trans fat.

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Trans fat can increase the risk of developing cardiovascular disease.  

**Trans fat is a nutrient to get less of.**

**Update on Trans Fat**

On June 16, 2015, the U.S. Food and Drug Administration (FDA) took action that will significantly reduce the use of partially hydrogenated oils, the major source of artificial trans fats in the food supply. This action is expected to reduce cardiovascular disease and prevent thousands of fatal heart attacks each year in the U.S.

FDA is providing companies three years to either reformulate products without partially hydrogenated oils and/or petition FDA to permit specific uses. Food companies have already been working to remove partially hydrogenated oils from processed foods and FDA anticipates that many may eliminate them ahead of the three-year compliance date.

It’s important to note that trans fat will not be completely gone from foods because it occurs naturally in small amounts in meat and dairy products, and is present at very low levels in other edible oils.

[http://www.fda.gov/nutritioneducation](http://www.fda.gov/nutritioneducation)
Health Facts

- About half of the *trans* fat Americans consume is from partially hydrogenated oils.
- *Trans* fat increases the level of low-density lipoprotein (LDL or “bad”) cholesterol and decreases the level of high-density lipoprotein (HDL or “good”) cholesterol in the blood — which, in turn, can increase the risk of developing cardiovascular disease. Cardiovascular disease is the leading cause of death in both men and women in the U.S.
- The *Dietary Guidelines for Americans* recommends keeping the intake of *trans* fat *as low as possible* by limiting foods containing *partially hydrogenated oils* (a source of artificial *trans* fat). Eating foods with even small amounts of *trans* fat can add up to a significant intake over time.

Action Steps

For Reducing *Trans* Fat in Your Diet

Use the **Nutrition Facts Label** as your tool for reducing consumption of *trans* fat formed during food processing. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) of *trans* fat in one serving of the food.

*Trans* fat has no Percent Daily Value (%DV), so use the amount of grams (g) as a guide.

- Look for partially hydrogenated oils on the ingredient list on a food package.
  
  NOTE: The Nutrition Facts Label can state 0 g of *trans* fat if the food product contains less than 0.5 g of *trans* fat per serving. Thus, if a product contains partially hydrogenated oils, then it might contain small amounts of *trans* fat even if the label says 0 g of *trans* fat.

- Switch from stick margarine to soft margarine (liquid, spray, or tub).
- Cook and bake with liquid oils (such as canola and olive oil) instead of solid fats (such as butter, lard, and shortening).
- Try baking, broiling, grilling, or steaming. These cooking methods do not add extra fat.
- Limit grain-based desserts and savory snacks (such as cakes, cookies, crackers, and microwave popcorn).
- Choose lean cuts of meats and skinless poultry.
- Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt) or fortified soy beverages for regular/full-fat (whole) dairy products.
- When eating out, ask which fats are being used to prepare your meal. You can also request to see nutrition information, which is available in many chain restaurants.
Sodium

**What It Is**

The words “salt” and “sodium” are often used interchangeably, but they do not mean the same thing. Sodium is a **mineral** and one of the **chemical elements found in salt**. Salt (also known by its chemical name, sodium chloride) is a crystal-like compound that is abundant in nature and is used to flavor and preserve food.

**Where It Is Found**

Over two-thirds of dietary sodium comes from eating **packaged and restaurant foods**, whereas only a small portion (11%) comes from salt added to food when cooking or eating.

More than 40% of the sodium consumed by Americans comes from the following 10 types of foods, many of which are commercially processed or prepared:

- Breads and rolls
- Cheese (natural and processed)
- Cold cuts and cured meats (such as deli and packaged ham and turkey)
- Mixed meat dishes (such as beef stew, chili, and meat loaf)
- Mixed pasta dishes (such as lasagna, pasta salad, and spaghetti with meat sauce)
- Pizza
- Poultry (fresh and processed)
- Sandwiches (such as hamburgers, hot dogs, and submarine sandwiches)
- Savory snacks (such as chips, crackers, popcorn, and pretzels)
- Soups

**What It Does**

- Sodium is an essential nutrient and is needed by the human body in **relatively small amounts** (provided that substantial sweating does not occur).
- Sodium is important for many body processes, such as fluid balance, muscle contraction, and nervous system function.
- As a food ingredient, sodium has multiple uses, such as for curing meat, baking, thickening, retaining moisture, enhancing flavor (including the flavor of other ingredients), and as a preservative.
Health Facts

• Most Americans exceed the recommended limits for sodium in the diet. On average, Americans eat about 3,400 milligrams (mg) of sodium per day.

• Diets higher in sodium can increase the risk of developing high blood pressure and cardiovascular disease. High blood pressure (also known as hypertension) makes the heart work harder, and the high force of the blood flow can harm arteries and organs, such as the heart, kidneys, brain, and eyes. Hypertension can lead to heart attacks, heart failure, kidney disease, stroke, and blindness.

• Approximately 56% of adults in the U.S. (ages 18 years and older) have either hypertension or prehypertension (blood pressure that is higher than normal, but not high enough to be defined as hypertension). Additionally, approximately 10% of children in the U.S. (ages 8 to 17 years old) have either hypertension or prehypertension.

• The Dietary Guidelines for Americans recommends limiting sodium intake to less than 2,300 mg per day – that’s equal to about 1 teaspoon of salt! Adults with hypertension and prehypertension should further reduce their sodium intake to 1,500 mg per day, which can result in even greater blood pressure reduction. Adults who would benefit from blood pressure lowering should also combine lower sodium intake with the Dietary Approaches to Stop Hypertension (DASH) eating plan (see http://www.nhlbi.nih.gov/health/health-topics/topics/dash).

Potassium Helps

Sodium and potassium both affect blood pressure, and eating foods high in potassium can help lower blood pressure by reducing the adverse effects of sodium on blood pressure. Examples of foods rich in potassium include bananas, beet greens, juices (such as carrot, orange, pomegranate, and prune), potatoes, spinach, sweet potatoes, tomatoes and tomato products, white beans, and yogurt (non-fat and low-fat).

Food manufacturers may voluntarily list the Percent Daily Value (%DV) of potassium per serving on the Nutrition Facts Label, but they are required to list potassium if a statement is made on the package labeling about its health effects or the amount contained in the food (for example, “high” or “low”).

Action Steps

For Reducing Sodium in Your Diet

Use the Nutrition Facts Label as your tool for reducing consumption of sodium. The Nutrition Facts Label on food and beverage packages shows the amount in milligrams (mg) and the Percent Daily Value (%DV) of sodium in one serving of the food.

The Daily Value for sodium is less than 2,400 mg per day.

☐ When comparing foods, choose foods with a lower %DV of sodium. The goal is to get less than 100% of the Daily Value for sodium each day. And remember:
  • 5% DV or less of sodium per serving is low
  • 20% DV or more of sodium per serving is high

☐ Look for sources of sodium on the ingredient list on a food package. Some examples of ingredients that contain sodium are: saline, sodium benzoate, sodium bicarbonate (baking soda), sodium chloride (salt), sodium nitrite, and monosodium glutamate (MSG). Tip: Ingredients are listed in descending order by weight — the closer an ingredient is to the beginning of the list, the more of that ingredient is in the food.

☐ Look for light, low sodium, reduced sodium, or no-salt-added versions of packaged foods, when available.

☐ Prepare your own food when you can and limit packaged sauces, mixes, and “instant” products (including flavored rice, instant noodles, and ready-made pasta).

☐ Limit the amount of salt you add to foods when cooking, baking, and eating. Instead, flavor foods with herbs and spices and no-salt seasoning blends.

☐ Choose fresh meats, poultry, and seafood, rather than processed varieties. Also, check the package on fresh meats and poultry to see if salt water or saline has been added.

☐ Buy fresh, frozen (no sauce or seasoning), low sodium, or no-salt-added canned vegetables.

☐ Rinse sodium-containing canned foods, such as beans, tuna, and vegetables before eating.

☐ Try light or reduced sodium condiments, add oil and vinegar to salads rather than bottled dressings, and use only a small amount of seasoning from flavoring packets instead of the entire packet.

☐ Choose low sodium or no-salt-added nuts, seeds, and savory snacks (such as chips, crackers, and pretzels) – or have carrot or celery sticks instead.

☐ Consume smaller portions of foods and beverages that are higher in sodium or consume them less often.

☐ When eating out, ask that your meal be prepared without salt and request that sauces and salad dressings be served “on the side,” then use less of them. You can also ask to see nutrition information (available in many chain restaurants), and then choose options that are lower in sodium.
Cholesterol

**What It Is**

Cholesterol is a waxy, fat-like substance produced primarily by the liver in both humans and animals. It is found in all cells of the body. Cholesterol in food is referred to as “dietary cholesterol” and is found only in animal products.

The human body makes more cholesterol than it needs — so it is not necessary to get cholesterol from food.

**Where It Is Found**

Dietary cholesterol is found in animal products, including:

- Beef fat (tallow and suet), chicken fat, and pork fat (lard)
- Cream and milk (whole and 2% milk)
- Dairy products (such as butter and regular/full-fat cheese, cream cheese, and ice cream)
- Egg yolks
- Meats and poultry
- Processed meat and poultry products (such as bacon, hot dogs, jerky, luncheon meats, and sausages)
- Shellfish (such as lobster and shrimp)

Plant foods (such as beans and peas, fruits, grains, nuts and seeds, vegetables, and vegetable oils) do not contain dietary cholesterol.

**What It Does**

- Cholesterol is a structural component of cell membranes.
- Cholesterol is necessary for the production of bile, a fluid made by the liver that aids in the digestion of fat in the intestine.
- Cholesterol is used to make to vitamin D and certain hormones, like estrogen and testosterone.

Cholesterol is a nutrient to get less of.
**Good vs. Bad Cholesterol**

Cholesterol is transported in the blood by particles called “lipoproteins,” which contain both lipid (fat) and protein. There are several types of lipoproteins, and how much you have of each of them is one of the many factors that determine your risk of cardiovascular disease.

- **Low-density lipoprotein (LDL) cholesterol** is often referred to as “bad” cholesterol. It is the form in which cholesterol is carried from the liver to arteries and body tissues. Higher levels of LDL cholesterol in the blood can lead to a harmful buildup of cholesterol in blood vessels. This buildup can increase your risk of developing cardiovascular disease.

- **High-density lipoprotein (HDL) cholesterol** is often referred to as “good” cholesterol. It is the form in which cholesterol travels from body tissues back to the liver, where it is broken down and removed. Higher levels of HDL cholesterol in the blood can help prevent cholesterol buildup in blood vessels, decreasing your risk of developing cardiovascular disease.

**Health Facts**

- Many foods that are higher in dietary cholesterol are generally higher in saturated fat, which can increase the risk of developing cardiovascular disease.

- The Dietary Guidelines for Americans recommends keeping the intake of dietary cholesterol as low as possible while maintaining a healthy diet.

**Action Steps**

For Monitoring Cholesterol in Your Diet

Use the Nutrition Facts Label as your tool for monitoring consumption of cholesterol. The Nutrition Facts Label on food and beverage packages shows the amount in milligrams (mg) and the Percent Daily Value (%DV) of cholesterol in one serving of the food.

The Daily Value for cholesterol is less than 300 mg per day.

- When comparing foods, choose foods with a lower %DV of cholesterol. The goal is to get less than 100% of the Daily Value for cholesterol each day. And remember:
  - 5% DV or less of cholesterol per serving is low
  - 20% DV or more of cholesterol per serving is high

- Try fish and plant sources of protein (such as beans and peas, soy products, and unsalted nuts and seeds) in place of some meats and poultry.

- Choose lean cuts of meats and poultry. Trim or drain fat from meat before or after cooking and remove poultry skin before cooking or eating.

- Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt), or fortified soy beverages for regular/full-fat (whole) dairy products.

- Cook and bake with liquid oils (like canola or olive oil) instead of solid fats (like butter, lard, or shortening).

- Opt for foods that are naturally low in cholesterol and saturated fat, such as beans and peas, fruits, vegetables, and whole grains.
# Total Carbohydrate

## What It Is

Carbohydrate is found primarily in plant foods; the exception is dairy products, which contain milk sugar (lactose). There are several types of carbohydrate:

- **Sugars** are the smallest type of carbohydrate and include single sugars and those with two sugar molecules joined together.
- **Sugar alcohols** are carbohydrates that chemically have characteristics of both sugars and alcohols.
- **Starches** are made up of many of glucose molecules linked together into long chains.
- **Dietary fiber** is made up of many sugar molecules linked together. But unlike starches, fiber is bound together in such a way that it cannot be readily digested. There are two types of dietary fiber: soluble and insoluble.

## Where It Is Found

- **Sugars** are found naturally in foods such as dairy products, fruits, and vegetables. Sugars are also added to foods and beverages for taste, texture and preservation, and are often found in foods such as grain-based and dairy desserts, sugar-sweetened beverages, and sweets.
- **Sugar alcohols** are found naturally in small amounts in a variety of fruits and vegetables. Sugar alcohols are also commercially produced from sugars and starch and added as reduced-calorie sweeteners to foods, such as chewing gum, frostings, grain-based and dairy desserts, and sweets.
- **Starches** are found naturally in beans and peas (such as garbanzo beans, kidney beans, lentils, and split peas), grains (such as barley, brown rice, corn, oats, and wheat), and vegetables (such as carrots and potatoes). Starches can also be added to foods during processing or preparation to thicken or stabilize them.
- **Dietary fiber** is found in beans and peas, fruits, nuts and seeds, vegetables, and whole grain foods (such as brown rice and whole grain breads, cereals, pasta).

## What It Does

- **Sugars and starches** are the body's main sources of calories. Your body breaks down these carbohydrates into glucose. Glucose in the blood (often referred to as “blood sugar”) is the primary energy source for the body. Sugars are also used to sweeten, preserve, and improve the functional attributes of food.
- **Sugar alcohols** provide a sweet taste with fewer calories per gram than table sugar (sucrose), and are commonly used in place of sugar in food. Sugar alcohols also have other functions in food, including producing a “cooling” sensation in the mouth, adding bulk and texture to food, and helping to retain moisture and prevent browning.
- **Dietary fiber** promotes intestinal regularity and helps prevents constipation. Fiber also makes you feel full, slows digestion and the rate at which carbohydrates and other nutrients are absorbed into the bloodstream, and can interfere with the absorption of dietary fat and cholesterol.
Health Facts

• Most Americans exceed the recommended limits for added sugars and do not get the recommended amounts of dietary fiber in the diet.
• Diets lower in added sugars and higher in dietary fiber and nutrient-dense foods and beverages can reduce the risk of cardiovascular disease.
• The Dietary Guidelines for Americans recommends consuming less than 10% of calories per day from added sugars and at least half of total grains as whole grains, and limiting the intake of refined grains and products made with refined grains.

*Nutrient-Dense: Defined
Nutrient-dense foods and beverages contain vitamins, minerals, dietary fiber, and other beneficial substances that may have positive health effects. They are also naturally lean or low in saturated fat and have little or no added saturated fat, sugars, refined starches, and sodium. Examples of nutrient dense foods are: beans and peas, eggs, fat-free (skim) and low-fat (1%) dairy products, fruits, lean meats and poultry, seafood, unsalted nuts and seeds, vegetables, and whole grains.

Action Steps

For Monitoring Total Carbohydrate in Your Diet

Use the Nutrition Facts Label as your tool for monitoring consumption of total carbohydrate. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) of total carbohydrate and the Percent Daily Value (%DV) of total carbohydrate in one serving of the food.

The Nutrition Facts Label also lists the types of carbohydrate that make up the total carbohydrate in a product. This includes the amount in grams (g) per serving of dietary fiber and sugars and the %DV of dietary fiber. Food manufacturers may also voluntarily list the amount in grams (g) per serving of soluble and/or insoluble fiber, sugar alcohols, and “other carbohydrates.” “Other carbohydrates” generally reflect the amount of starch in a product and is defined as the difference between total carbohydrate and the sum of dietary fiber, sugars, and sugar alcohols.

The Daily Value for total carbohydrate is 300 g per day. This is based on a 2,000 calorie diet — your Daily Value may be higher or lower depending on your calorie needs.

☐ When comparing foods, look at the %DV of total carbohydrate. The goal is to get 100% of the Daily Value for total carbohydrate on most days. And remember:
  • 5% DV or less of total carbohydrate per serving is low
  • 20% DV or more of total carbohydrate per serving is high

☐ Focus on eating nutrient-dense foods that contain dietary fiber combined with other beneficial nutrients and naturally occurring sugars.

☐ Switch from refined to whole grain versions of commonly consumed foods (such as breads, cereals, pasta, and rice), and try to make them at least half of your daily grain choices. Try options that don’t include added saturated fats, sugars, or sodium, such as bread instead of croissants, English muffins instead of biscuits, and plain popcorn instead of buttered.

☐ Choose fruit (fresh, frozen, dried, or canned in 100% natural juice) as snacks, salads, or desserts.

☐ Keep raw, cut-up vegetables handy for quick snacks – choose colorful dark green, orange, and red vegetables, such as broccoli florets, carrots, and red peppers.

☐ Whenever possible, choose water, fat-free (skim) or low-fat (1%) milk, 100% fruit or vegetable juice, or unsweetened tea or coffee instead of sugar-sweetened beverages (such as energy drinks, flavored waters, fruit drinks, soft drinks, and sports drinks).

☐ Add beans and peas or unsalted nuts and seeds to your daily meals. These are also great sources of dietary fiber and protein.

☐ Limit snacks and sweets (such as cakes, candies, cookies, ice cream, pastries, and puddings).

☐ Consume smaller portions of foods and beverages that are higher in sugars or consume them less often.

Total Carbohydrate 2
Sugars

What They Are

Sugars are the smallest and simplest type of carbohydrate. They are easily digested and absorbed by the body.

There are two types of sugars, and most foods contain some of each kind.

<table>
<thead>
<tr>
<th>Single sugars (monosaccharides)</th>
<th>Sugars that contain two molecules of sugar (disaccharides)</th>
</tr>
</thead>
<tbody>
<tr>
<td>are small enough to be absorbed directly into the bloodstream. They include:</td>
<td>linked together (disaccharides) are broken down in your body into single sugars. They include:</td>
</tr>
<tr>
<td>Fructose</td>
<td>Sucrose (table sugar) = glucose + fructose</td>
</tr>
<tr>
<td>Galactose</td>
<td>Lactose (milk sugar) = glucose + galactose</td>
</tr>
<tr>
<td>Glucose</td>
<td>Maltose (malt sugar) = glucose + glucose</td>
</tr>
</tbody>
</table>

Where They Are Found

Sugars are found naturally in many nutritious foods and beverages and are also added to foods and beverages for taste, texture, and preservation.

Naturally occurring sugars are found in a variety of foods, including:
- Dairy products
- Fruit (fresh, frozen, dried, and canned in 100% fruit juice)
- 100% fruit and vegetable juice
- Vegetables

Added sugars are often found in foods low in other nutrients, including:
- Dairy desserts (such as ice cream, other frozen desserts, and puddings)
- Grain-based desserts (such as brownies, cakes, cookies, doughnuts, pastries, pies, and sweet rolls)
- Sugar-sweetened beverages (such as energy drinks, flavored waters, fruit drinks, soft drinks, sports drinks, and sweetened coffee and tea)
- Sweets (such as candies, jams, sweet toppings, and syrups)

What They Do

- Sugars provide calories, or “energy,” for the body. Each gram of sugar provides 4 calories.
  - The human body breaks down sugars into glucose. Glucose in the blood (often referred to as “blood sugar”) is the primary energy source for the body.
  - Glucose can be used immediately or stored in the liver and muscles for later use.
- Sugars are used to sweeten, preserve, and improve the functional attributes of foods and beverages (such as viscosity, texture, body, color, and browning capability).
Health Facts

- Most Americans exceed the recommended limits for added sugars in the diet. On average, Americans consume more than 13% of total calories (or almost 270 calories) per day from added sugars, with intakes particularly high among children, adolescents, and young adults. The main sources of added sugars in U.S. diet are sugar-sweetened beverages, desserts, and sweets.
- Diets lower in added sugars and higher in nutrient-dense foods and beverages can reduce the risk of cardiovascular disease.
- The Dietary Guidelines for Americans recommends consuming less than 10% of calories per day from added sugars. The guidelines also note that many foods and beverages that contain added sugars also tend to be high in calories and provide few or no important nutrients or dietary fiber.
- Diets higher in both added and naturally occurring sugars can increase the risk of developing cavities (also known as “dental caries”).

* Nutrient-Dense: Defined

Nutrient-dense foods and beverages contain vitamins, minerals, dietary fiber, and other beneficial substances that may have positive health effects. They are also naturally lean or low in saturated fat and have little or no added saturated fat, sugars, refined starches, and sodium. Examples of nutrient dense foods are: beans and peas, eggs, fat-free (skim) and low-fat (1%) dairy products, fruits, lean meats and poultry, seafood, unsalted nuts and seeds, vegetables, and whole grains.

Action Steps

For Monitoring Sugars in Your Diet

Use the Nutrition Facts Label as your tool for monitoring consumption of sugars. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) of sugars in one serving of the food.

- Sugars have no percent Daily Value (%DV), so use the amount of grams (g) as a guide.
- Look for added sugars on the ingredient list on a food package. Some examples are: brown sugar, corn sweetener, corn syrup, dextrose, fructose sweetener, fruit juice concentrates, glucose, high-fructose corn syrup, honey, invert sugar, lactose, maltose, malt syrup, maple syrup, molasses, pancake syrup, raw sugar, sucrose, trehalose, and turbinado sugar.
  
  Tip: Ingredients are listed in descending order by weight — the closer they are to the beginning of the list, the more of that ingredient is in the food.
- Focus on eating nutrient-dense foods that contain naturally occurring sugars, such as fat-free (skim) or low-fat (1%) dairy products, fruits, and vegetables.
- Choose fruit (fresh, frozen, dried, or canned in 100% fruit juice) as snacks, salads, or desserts.
- Try unsweetened or no-sugar added versions of fruit sauces (such as applesauce) and yogurt.
- Instead of sugars, syrups, or other sweet toppings, use fruit to top foods like cereal and pancakes.
- Whenever possible, choose water, fat-free (skim) or low-fat (1%) milk, 100% fruit or vegetable juice, and unsweetened tea or coffee instead of sugar-sweetened beverages (such as such as energy drinks, flavored waters, fruit drinks, soft drinks, and sports drinks).
- Limit the amount of sugar you add to foods when cooking, baking, and eating.
- Limit dairy and grain-based desserts (such as cakes, cookies, ice cream, and puddings) and sweets (such as candies, jams, and syrups).
- Consume smaller portions of foods and beverages that are higher in sugars or consume them less often.
- When eating out, ask to see nutrition information (available in many chain restaurants), and then choose options that are lower in sugars.
**Sugar Alcohols**

### What They Are
Sugar alcohols are **carbohydrates** that chemically have characteristics of both sugars and alcohols. However, sugar alcohols do not contain the type of alcohol found in alcoholic beverages.

### Where They Are Found
Sugar alcohols are found **naturally** in small amounts in a variety of fruits and vegetables and are also **commercially produced** from sugars and starch.

Commercially produced sugar alcohols are added to foods as reduced-calorie sweeteners and are found in many sugar-free and reduced-sugar products, including:

- Chewing gum
- Dairy desserts (such as ice cream, other frozen desserts, and puddings)
- Frostings
- Grain-based desserts (such as cakes and cookies)
- Sweets (such as hard and soft candies, flavored jam, and jelly spreads)

### What They Do
- Sugar alcohols provide a sweet taste with fewer calories per gram than table sugar (sucrose), and are commonly used in place of sugar and often in combination with artificial sweeteners.
- Sugar alcohols in food add bulk and texture, help retain moisture, and prevent browning that occurs during heating.
- Sugar alcohols produce a "cooling" sensation in the mouth when added to foods in high concentrations — for example, in sugar-free hard candy or chewing gum.
- Unlike sugar, sugar alcohols do not react with plaque bacteria in the mouth. So, they do not cause cavities (also known as "dental caries").

**Sugar Alcohols**

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Health Facts

- Sugar alcohols are slowly and incompletely absorbed from the small intestine into the blood. As a result, they provide fewer calories per gram than sugar and produce a smaller change in blood glucose (often referred to as blood sugar) than other carbohydrates.
- Sugar alcohols can also produce abdominal gas, bloating, and diarrhea in some individuals because they are not completely absorbed by the body and are fermented by bacteria in the large intestine. For this reason, foods that contain the sugar alcohols sorbitol or mannitol must include a warning on their label that states “excess consumption may have a laxative effect.”

Action Steps

For Monitoring Sugar Alcohols in Your Diet

Use the Nutrition Facts Label as your tool for monitoring consumption of sugar alcohols. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) of total carbohydrate and sugars and the Percent Daily Value (%DV) of total carbohydrate in one serving of the food.

Food manufacturers may voluntarily list the amount in grams (g) per serving of sugar alcohols on the Nutrition Facts Label (under Total Carbohydrate). They may also list the name of a specific sugar alcohol if only one is added to the food. But, food manufacturers are required to list sugar alcohols if a statement is made on the package labeling about the health effects of sugar alcohols or sugars (when sugar alcohols are present in the food).

- Look for sugar alcohols on the ingredient list on a food package. Some examples of sugar alcohols are: arabitol, erythritol, glycerol, hydrogenated starch hydrolysates (HSH), isomalt, lactitol, maltitol, mannitol, sorbitol, and xylitol.
  
  **Tip:** Ingredients are listed in descending order by weight — the closer they are to the beginning of the list, the more of that ingredient is in the food.

- When choosing “sugar-free” foods containing sugar alcohols, remember to use the Nutrition Facts Label to compare the calories and nutrients in the sugar-free version to the regular version of a particular food. These products may still have a significant amount of calories, carbohydrate, and fat.
**What It Is**

Dietary fiber, or fiber, is sometimes referred to as “roughage.” It is a type of carbohydrate found in plant foods and is made up of many sugar molecules linked together. But unlike other carbohydrates (such as starch), dietary fiber is bound together in such a way that it cannot be readily digested in the small intestine.

There are two types of dietary fiber, and most plant foods contain some of each kind:

- **Soluble fiber** dissolves in water to form a thick gel-like substance in the stomach. It is broken down by bacteria in the large intestine and provides some calories.
- **Insoluble fiber** does not dissolve in water and passes through the gastrointestinal tract relatively intact and, therefore, is not a source of calories.

**Where It Is Found**

**Soluble fiber** is found in a variety of foods, including:
- Beans and peas
- Fruits
- Oats (such as oat bran and oatmeal)

**Insoluble fiber** is found in a variety of foods, including:
- Fruits
- Nuts and seeds
- Vegetables
- Wheat bran
- Whole grain foods (such as brown rice and whole grain breads, cereals, and pasta)

**What It Does**

- **Soluble fiber** can interfere with the absorption of dietary fat and cholesterol. This, in turn, can help lower low-density lipoprotein (LDL or “bad”) cholesterol levels in the blood. Soluble fiber also slows digestion and the rate at which carbohydrates and other nutrients are absorbed into the bloodstream. This can help control the level of blood glucose (often referred to as blood sugar) by preventing rapid rises in blood glucose following a meal.
- **Insoluble fiber** provides “bulk” for stool formation and speeds up the movement of food and waste through the digestive system, which can help prevent constipation.
- Both **soluble and insoluble fiber** make you feel full, which may help you eat less and stay satisfied longer.
• Most Americans do not get the recommended amount of dietary fiber. Dietary fiber is considered a “nutrient of public health concern” because low intakes are associated with potential health risks.
• Diets higher in dietary fiber promote intestinal regularity and can reduce the risk of developing cardiovascular disease.
• The Dietary Guidelines for Americans recommends consuming a variety of nutrient-dense foods that are good sources of dietary fiber, such as beans and peas, fruits, unsalted nuts and seeds, vegetables, and whole grains. The guidelines also recommend consuming at least half of total grains as whole grains and limiting the intake of refined grains and products made with refined grains.

*Nutrient-Dense: Defined
Nutrient-dense foods and beverages contain vitamins, minerals, dietary fiber, and other beneficial substances that may have positive health effects. They are also naturally lean or low in saturated fat and have little or no added saturated fat, sugars, refined starches, and sodium. Examples of nutrient dense foods are: beans and peas, eggs, fat-free (skim) and low-fat (1%) dairy products, fruits, lean meats and poultry, seafood, unsalted nuts and seeds, vegetables, and whole grains.

The Scoop on Grains
Grains are the seeds from certain cereal crops grown for food. Examples of grains include barley, corn, millet, oats, rice, and wheat. There are several types of grains:

• Whole grains include the entire grain seed (usually called the “kernel”), which consists of the bran, germ, and endosperm — nothing has been added or taken away by processing. Whole grains contain dietary fiber and other carbohydrates, protein, vitamins, minerals, and beneficial fats. Whole grains are consumed either as a single food (such as brown rice, oatmeal, and popcorn) or as an ingredient in food (such as in breads, cereals, crackers, and pasta).
• Refined grains have been processed (also called milled) to remove the bran and germ from the grain. This is done to give the grains a finer texture, lighter color, and longer shelf life. But, processing also removes dietary fiber, iron, B vitamins, and other nutrients.
• Enriched grains have the key nutrients that were lost during processing restored. Typically, this includes iron and B vitamins (thiamin, riboflavin, and niacin). Most refined grain products in the U.S. are enriched, and often there will be a statement on the food package indicating that the product is “enriched.” Examples of enriched grain products include enriched white rice and enriched white bread.

Many grain-based foods are also fortified with additional vitamins and minerals. These are considered “nutrients to get more of” because they are generally lacking in the American diet. For example, many ready-to-eat cereals and snack bars are fortified with calcium.

For Increasing Dietary Fiber in Your Diet
Use the Nutrition Facts Label as your tool for increasing consumption of dietary fiber. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) and the Percent Daily Value (%DV) of dietary fiber in one serving of the food.

Food manufacturers may voluntarily list the amount in grams (g) per serving of soluble fiber and insoluble fiber on the Nutrition Facts Label (under Dietary Fiber), but they are required to list soluble fiber and/or insoluble fiber if a statement is made on the package labeling about their health effects or the amount (for example, “high” or “low”) contained in the food.

The Daily Value for fiber is 25 g per day. This is based on a 2,000 calorie diet — your Daily Value may be higher or lower depending on your calorie needs.

- When comparing foods, choose foods with a higher %DV of dietary fiber. The goal is to get 100% of the Daily Value for dietary fiber on most days. And remember:
  - 5% DV or less of dietary fiber per serving is low
  - 20% DV or more of dietary fiber per serving is high

- Look for whole grains on the ingredient list on a food package. Some examples of whole grain ingredients are: barley, brown rice, buckwheat, millet, oatmeal, quinoa, rolled oats, whole grain corn, whole grain sorghum, whole oats, whole rye, and whole wheat.

  Tip: Ingredients are listed in descending order by weight — the closer they are to the beginning of the list, the more of that ingredient is in the food.

- Switch from refined to whole grain versions of commonly consumed foods (such as breads, cereals, pasta, and rice).
- Limit refined grains and products made with refined grains (such as cakes, chips, cookies, and crackers), which can be high in added sugars, saturated fat, and/or sodium and are common sources of excess calories.
- Start your day with a bowl of whole grain breakfast cereal (such as bran or oatmeal) that is high in dietary fiber and low in added sugars. Top your cereal with fruit for sweetness and even more fiber!
- Choose fruit (fresh, frozen, dried, or canned in 100% fruit juice) as snacks, salads, or desserts.
- Keep raw, cut-up vegetables handy for quick snacks — choose colorful dark green, orange, and red vegetables, such as broccoli florets, carrots, and red peppers.
- Add beans (such as garbanzo, kidney, or pinto), lentils, or peas to salads, soups, and side dishes — or serve them as a main dish.
- Try unsalted nuts and seeds in place of some meats and poultry.
Protein

What It Is

Protein is found in foods from both plants and animals. Protein is made up of hundreds or thousands of smaller units, called amino acids, which are linked to one another in long chains. The sequence of amino acids determines each protein’s unique structure and its specific function.

There are twenty different amino acids that can be combined to make every type of protein in the body. These amino acids fall into two categories:

- **Essential amino acids** are required for normal body functioning, but they cannot be made by the body and must be obtained from food. Of the twenty amino acids, nine are considered “essential.”
- **Nonessential amino acids** can be made by the body from essential amino acids consumed in food or in the normal breakdown of body proteins. Of the twenty amino acids, eleven are considered “nonessential.”

Where It Is Found

Protein is found in a variety of foods, including:

- Beans and peas
- Dairy products
- Eggs
- Grains and vegetables (these generally provide less protein than is found in other sources)
- Meats and poultry
- Nuts and seeds
- Seafood (fish and shellfish)
- Soy products

What It Does

- Protein provides calories, or “energy,” for the body. Each gram of protein provides 4 calories.
- Protein is a component of every cell in the human body and is necessary for proper growth and development, especially during childhood, adolescence, and pregnancy.
- Protein helps your body build and repair cells and body tissue.
- Protein is a major part of your skin, hair, nails, muscle, bone, and internal organs. Protein is also found in almost all body fluids.
- Protein is important for many body processes, such as blood clotting, fluid balance, immune response, vision, and production of hormones and enzymes.
- Protein foods are also important sources of vitamins and minerals such as B vitamins (for example, niacin, riboflavin, vitamin B₆, and vitamin B₁₂), choline, copper, iron, phosphorus, selenium, vitamin D, vitamin E, and zinc.

http://www.fda.gov/nutritioneducation
Protein: A Closer Look

Dietary proteins are not all the same. They are made up of different combinations of amino acids and are characterized according to how many of the essential amino acids they provide.

- **Complete proteins** contain all of the essential amino acids in adequate amounts. Animal foods (such as dairy products, eggs, meats, poultry, and seafood,) and soy are complete protein sources.

- **Incomplete proteins** are missing, or do not have enough of, one or more of the essential amino acids, making the protein imbalanced. Most plant foods (such as beans and peas, grains, nuts and seeds, and vegetables) are incomplete protein sources.

- **Complementary proteins** are two or more incomplete protein sources that, when eaten in combination (at the same meal or during the same day), compensate for each other's lack of amino acids. For example, grains are low in the amino acid lysine, while beans and nuts (legumes) are low in the amino acid methionine. When grains and legumes are eaten together (such as rice and beans or peanut butter on whole wheat bread), they form a complete protein.

Health Facts

- Most Americans get the recommended amounts of protein to meet their needs. However, many individuals do not eat enough seafood and dairy products.

- Diets lower in meats and processed meats and processed poultry can reduce the risk of developing cardiovascular disease, type 2 diabetes, obesity, and some types of cancers.

- The Dietary Guidelines for Americans recommends eating a variety of nutrient-dense protein foods from both plant and animal sources. The guidelines also note that processed meats and poultry can be included in a healthy diet when consumed within recommended limits for calories, sodium, saturated fat, and added sugars.

*Nutrient-Dense: Defined

Nutrient-dense foods and beverages contain vitamins, minerals, dietary fiber, and other beneficial substances that may have positive health effects. They are also naturally lean or low in saturated fat and have little or no added saturated fat, sugars, refined starches, and sodium.

Examples of nutrient dense foods are: beans and peas, eggs, fat-free (skim) and low-fat (1%) dairy products, fruits, lean meats and poultry, seafood, unsalted nuts and seeds, vegetables, and whole grains.

Action Steps

For Monitoring Protein in Your Diet

Use the Nutrition Facts Label as your tool for monitoring consumption of protein, while choosing protein foods that are lower in saturated fat. The Nutrition Facts Label on food and beverage packages shows the amount in grams (g) of protein in one serving of the food.

Protein generally has no Percent Daily Value (%DV), so use the amount of grams (g) as a guide. Food manufacturers may voluntarily list the %DV of protein per serving on the Nutrition Facts Label, but they are required to list the %DV of protein if a statement is made on the package labeling about the health effects or the amount of protein (for example, “high” or “low”) contained in the food.

The Daily Value for protein is 50 g per day. This is based on a 2,000 calorie diet — your Daily Value may be higher or lower depending on your calorie needs.

- Choose a variety of nutrient-dense protein foods, such as beans and peas, eggs, fat-free (skim) or low-fat (1%) dairy products, lean meats and poultry, seafood, soy products, and unsalted nuts and seeds.

- Choose seafood and plant sources of protein (such as beans and peas, soy products, and unsalted nuts and seeds) in place of some meats and poultry.

- Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt) or fortified soy beverages for regular/full-fat (whole) dairy products.

- Select fresh meats, poultry, and seafood, rather than processed varieties.

- Trim or drain fat from meats before or after cooking and remove poultry skin before cooking or eating.

- Try baking, broiling, grilling, or steaming. These cooking methods do not add extra fat.
Vitamins and minerals are required by the body in relatively small amounts and support many body processes.

**Vitamins and minerals are nutrients to get more of.**

### What They Are

- **Vitamins** are organic substances made by plants and animals, which are then eaten by humans.
  - There are 13 vitamins: vitamins A, C, D, E, K, and the B vitamins (thiamin, riboflavin, niacin, pantothenic acid, biotin, vitamin B₆, vitamin B₁₂, and folate).
  - You can get all your vitamins from the foods you eat, but your body also makes vitamins D and K.
- **Minerals** are inorganic substances that are not made by living things.
  - Minerals are found naturally in soil and water and are absorbed by plants, which are then eaten by people and other animals. Examples of minerals are iron, calcium, and potassium.
  - People obtain minerals from both the plant and animal products they eat.

### Where They Are Found

Vitamins and minerals are found in a variety of foods, including:

- Beans and peas
- Dairy products
- Eggs
- Fortified foods (such as breakfast cereals and soy beverages)
- Fruits
- Meats and poultry
- Nuts and seeds
- Seafood
- Vegetables
- Whole grain foods (such as brown rice and whole grain breads, cereals, and pasta)

### What They Do

The human body needs the right “mix” of nutrients for good health. That not only means getting the right amount of carbohydrate, protein, and fat (as also called macronutrients), but also the right amount of vitamins and minerals (also called micronutrients). Micronutrients help your body use macronutrients and support many body processes, including:

- Blood pressure regulation
- Blood sugar regulation
- Brain function
- Digestion
- Growth and development
- Heart function
- Hormone production
- Immune function
- Metabolism of drugs and toxins
- Muscle contraction
- Nervous system function
- Protein, carbohydrate, and fat metabolism
- Red blood cell formation
- Reproduction
- Taste and smell
- Vision
- Wound healing

See the [Vitamins and Minerals Chart](http://www.fda.gov/nutritioneducation) for functions that each vitamin and mineral performs in the body.
**Health Facts**

- The majority of Americans get the recommended amounts of most vitamins and minerals to meet their needs. However, many people do not get the recommended levels of some important micronutrients. These nutrients are considered to be "nutrients of public health concern" because low intakes are associated with potential health risks and include:
  - Calcium
  - Iron (of concern for young children, pregnant women, and women capable of becoming pregnant)
  - Potassium
  - Vitamin D

- The Dietary Guidelines for Americans recommends choosing a variety of *nutrient-dense* foods that are good sources of vitamins and minerals, especially calcium, iron, potassium, and vitamin D.

Also, see the [Vitamins and Minerals Chart](#) for examples of what foods are good sources of the different micronutrients.

**Nutrient-Dense: Defined**

Nutrient-dense foods and beverages contain vitamins, minerals, dietary fiber, and other beneficial substances that may have positive health effects. They are also naturally lean or low in saturated fat and have little or no added saturated fat, sugars, refined starches, and sodium. Examples of nutrient dense foods are: beans and peas, eggs, fat-free (skim) and low-fat (1%) dairy products, fruits, seafood, lean meats and poultry, unsalted nuts and seeds, vegetables, and whole grains.

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**Action Steps**

For Consuming a Nutrient-Dense Diet

Use the **Nutrition Facts Label** as your tool for consuming a nutrient-dense diet rich in vitamins and minerals. The Nutrition Facts Label on food and beverage packages shows the Percent Daily Value (%DV) for vitamin A, vitamin C, calcium, and iron in **one serving** of the food.

Food manufacturers may **voluntarily** list the %DV of other naturally occurring vitamins and minerals per serving on the Nutrition Facts Label, but they are **required** to list any vitamins and minerals that are added to the food or if a statement is made on the package labeling about their health effects or the amount contained in the food (for example, “high” or “low”).

- When comparing foods, choose foods with a higher %DV of vitamin A, vitamin C, calcium, and iron. The goal is to get 100% of the Daily Value for these nutrients on most days. And remember:
  - 5% DV or less of a vitamin or mineral per serving is low
  - 20% DV or more of a vitamin or mineral per serving is high

- Consume at least half of your daily fruit choices as whole fruits (such as fresh, frozen, cooked, dried, and canned in 100% fruit juice). Choose 100% fruit juice instead of sugar-sweetened beverages (such as energy drinks, flavored waters, fruit drinks, soft drinks, and sports drinks). Try fruit as snacks, salads, side dishes, and desserts.

- Eat more colorful vegetables (such as fresh, frozen, canned, and dried) and 100% vegetable juices. Buy frozen (without butter or sauce) or low sodium or no-salt-added canned vegetables. Try vegetables as snacks, salads, and side dishes and incorporate vegetables into main dishes.

- Consume at least half of your total grain choices as whole grains (such as brown rice, whole oats, and whole wheat). Whole grains are a source of important vitamins and minerals and are typically high in fiber, too. Switch from refined to whole grain versions of commonly consumed foods (such as breads, cereals, pasta, and rice). Limit refined grains and products made with refined grains, especially those high in calories, saturated fat, added sugars, and/or sodium (such as cakes, chips, cookies, and crackers).

- Eat a variety of protein foods, such as beans and peas, fat-free (skim) or low-fat (1%) dairy products, eggs, lean meats and poultry, seafood (fish and shellfish), soy products, and unsalted nuts and seeds. Choose seafood and plant sources of protein (such as soy products, beans and peas, and unsalted nuts and seeds) in place of some meats and poultry. Add beans or peas to salads, soups, and side dishes, or serve them as a main dish. Snack on a small handful of unsalted nuts or seeds rather than chips or salty snack foods.

- Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt), or fortified soy beverages for regular/full-fat (whole) dairy products.
## Vitamins

<table>
<thead>
<tr>
<th>VITAMIN</th>
<th>WHAT IT DOES</th>
<th>WHERE IS IT FOUND</th>
<th>DAILY VALUE*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biotin</strong></td>
<td>• Energy storage</td>
<td>• Avocados&lt;br&gt;• Cauliflower&lt;br&gt;• Eggs&lt;br&gt;• Fruits (e.g., raspberries)&lt;br&gt;• Liver&lt;br&gt;• Pork&lt;br&gt;• Salmon&lt;br&gt;• Whole grains</td>
<td>300 mcg</td>
</tr>
<tr>
<td><strong>Folate/Folic Acid</strong></td>
<td>• Prevention of birth defects&lt;br&gt;• Protein metabolism&lt;br&gt;• Red blood cell formation</td>
<td>• Asparagus&lt;br&gt;• Avocado&lt;br&gt;• Beans and peas&lt;br&gt;• Enriched grain products (e.g., bread, cereal, pasta, rice)&lt;br&gt;• Green leafy vegetables (e.g., spinach)&lt;br&gt;• Orange juice</td>
<td>400 mcg</td>
</tr>
<tr>
<td><strong>Niacin</strong></td>
<td>• Cholesterol production&lt;br&gt;• Conversion of food into energy&lt;br&gt;• Digestion&lt;br&gt;• Nervous system function</td>
<td>• Beans&lt;br&gt;• Beef&lt;br&gt;• Enriched grain products (e.g., bread, cereal, pasta, rice)&lt;br&gt;• Nuts&lt;br&gt;• Pork&lt;br&gt;• Poultry&lt;br&gt;• Seafood&lt;br&gt;• Whole grains</td>
<td>20 mg</td>
</tr>
<tr>
<td><strong>Pantothenic Acid</strong></td>
<td>• Conversion of food into energy&lt;br&gt;• Fat metabolism&lt;br&gt;• Hormone production&lt;br&gt;• Nervous system function&lt;br&gt;• Red blood cell formation</td>
<td>• Avocados&lt;br&gt;• Beans and peas&lt;br&gt;• Broccoli&lt;br&gt;• Eggs&lt;br&gt;• Milk&lt;br&gt;• Mushrooms&lt;br&gt;• Poultry&lt;br&gt;• Seafood&lt;br&gt;• Sweet potatoes&lt;br&gt;• Whole grains&lt;br&gt;• Yogurt</td>
<td>10 mg</td>
</tr>
<tr>
<td><strong>Riboflavin</strong></td>
<td>• Conversion of food into energy&lt;br&gt;• Growth and development&lt;br&gt;• Red blood cell formation</td>
<td>• Eggs&lt;br&gt;• Enriched grain products (e.g., bread, cereal, pasta, rice)&lt;br&gt;• Meats&lt;br&gt;• Milk&lt;br&gt;• Mushrooms&lt;br&gt;• Poultry&lt;br&gt;• Seafood (e.g., oysters)&lt;br&gt;• Spinach</td>
<td>1.7 mg</td>
</tr>
<tr>
<td><strong>Thiamin</strong></td>
<td>• Conversion of food into energy&lt;br&gt;• Nervous system function</td>
<td>• Beans and peas&lt;br&gt;• Enriched grain products (e.g., bread, cereal, pasta, rice)&lt;br&gt;• Nuts&lt;br&gt;• Pork&lt;br&gt;• Sunflower seeds&lt;br&gt;• Whole grains</td>
<td>1.5 mg</td>
</tr>
</tbody>
</table>

* The Daily Values are the amounts of nutrients recommended per day for Americans 4 years of age or older.
<table>
<thead>
<tr>
<th>VITAMIN</th>
<th>WHAT IT DOES</th>
<th>WHERE IS IT FOUND</th>
<th>DAILY VALUE*</th>
</tr>
</thead>
</table>
| Vitamin A | Growth and development  
• Immune function  
• Reproduction  
• Red blood cell formation  
• Skin and bone formation  
• Vision | Cantaloupe  
Carrots  
Dairy products  
Eggs  
Fortified cereals  
Green leafy vegetables (e.g., spinach and broccoli)  
Pumpkin  
Red peppers  
Sweet potatoes | 5,000 IU |
| Vitamin B<sub>6</sub> | Immune function  
• Nervous system function  
• Protein, carbohydrate, and fat metabolism  
• Red blood cell formation | Chickpeas  
Fruits (other than citrus)  
Potatoes  
Salmon  
Tuna | 2 mg |
| Vitamin B<sub>12</sub> | Conversion of food into energy  
• Nervous system function  
• Red blood cell formation | Dairy products  
Eggs  
Fortified cereals  
Meats  
Poultry  
Seafood (e.g., clams, trout, salmon, haddock, tuna) | 6 mcg |
| Vitamin C | Antioxidant  
• Collagen and connective tissue formation  
• Immune function  
• Wound healing | Broccoli  
Brussels sprouts  
Cantaloupe  
Citrus fruits and juices (e.g., oranges and grapefruit)  
Kiwi  
Peppers  
Strawberries  
Tomatoes and tomato juice | 60 mg |
| Vitamin D | Blood pressure regulation  
• Bone growth  
• Calcium balance  
• Hormone production  
• Immune function  
• Nervous system function | Eggs  
Fish (e.g., herring, mackerel, salmon, trout, and tuna)  
Fish liver oil  
Fortified cereals  
Fortified dairy products  
Fortified margarine  
Fortified orange juice  
Fortified soy beverages (soymilk) | 400 IU |
| Vitamin E | Antioxidant  
• Formation of blood vessels  
• Immune function | Fortified cereals and juices  
Green vegetables (e.g., spinach and broccoli)  
Nuts and seeds  
Peanuts and peanut butter  
Vegetable oils | 30 IU |
| Vitamin K | Blood clotting  
• Strong bones | Green vegetables (e.g., broccoli, kale, spinach, turnip greens, collards, Swiss chard, mustard greens) | 80 mcg |

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# Minerals

<table>
<thead>
<tr>
<th>MINERAL</th>
<th>WHAT IT DOES</th>
<th>WHERE IS IT FOUND</th>
<th>DAILY VALUE*</th>
</tr>
</thead>
</table>
| **Calcium**  
*Nutrient of concern for most Americans* | • Blood clotting  
• Bone and teeth formation  
• Constriction and relaxation of blood vessels  
• Hormone secretion  
• Muscle contraction  
• Nervous system function | • Almond, rice, coconut, and hemp milks  
• Canned seafood with bones (e.g., salmon and sardines)  
• Dairy products  
• Fortified cereals and juices  
• Fortified soy beverages (soymilk)  
• Green vegetables (e.g., spinach, kale, broccoli, turnip greens)  
• Tofu (made with calcium sulfate) | 1,000 mg |
| **Chloride** | • Acid-base balance  
• Conversion of food into energy  
• Digestion  
• Fluid balance  
• Nervous system function | • Celery  
• Lettuce  
• Olives  
• Rye  
• Salt substitutes  
• Seaweeds (e.g., dulse and kelp)  
• Table salt and sea salt  
• Tomatoes | 3,400 mg |
| **Chromium** | • Insulin function  
• Protein, carbohydrate, and fat metabolism | • Broccoli  
• Fruits (e.g., apple and banana)  
• Grape and orange juice  
• Meats  
• Spices (e.g., garlic and basil)  
• Turkey  
• Whole grains | 120 mcg |
| **Copper** | • Antioxidant  
• Bone formation  
• Collagen and connective tissue formation  
• Energy production  
• Iron metabolism  
• Nervous system function | • Chocolate and cocoa  
• Crustaceans and shellfish  
• Lentils  
• Nuts and seeds  
• Organ meats (e.g., liver)  
• Whole grains | 2 mg |
| **Iodine** | • Growth and development  
• Metabolism  
• Reproduction  
• Thyroid hormone production | • Breads and cereals  
• Dairy products  
• Iodized salt  
• Potatoes  
• Seafood  
• Seaweed  
• Turkey | 150 mcg |
| **Iron**  
*Nutrient of concern for young children, pregnant women, and women capable of becoming pregnant* | • Energy production  
• Growth and development  
• Immune function  
• Red blood cell formation  
• Reproduction  
• Wound healing | • Beans and peas  
• Dark green vegetables  
• Meats  
• Poultry  
• Prunes and prune juice  
• Raisins  
• Seafood  
• Whole grain, enriched, and fortified cereals and breads | 18 mg |

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## Minerals (cont’d)

<table>
<thead>
<tr>
<th>MINERAL</th>
<th>WHAT IT DOES</th>
<th>WHERE IS IT FOUND</th>
<th>DAILY VALUE*</th>
</tr>
</thead>
</table>
| Magnesium     | • Blood pressure regulation  
• Blood sugar regulation  
• Bone formation  
• Energy production  
• Hormone secretion  
• Immune function  
• Muscle contraction  
• Nervous system function  
• Normal heart rhythm  
• Protein formation | • Avocados  
• Bananas  
• Beans and peas  
• Dairy products  
• Green leafy vegetables (e.g., spinach)  
• Nuts and pumpkin seeds  
• Potatoes  
• Raisins  
• Wheat bran  
• Whole grains | 400 mg |
| Manganese     | • Carbohydrate, protein, and cholesterol metabolism  
• Cartilage and bone formation  
• Wound healing | • Beans  
• Nuts  
• Pineapple  
• Spinach  
• Sweet potato  
• Whole grains | 2 mg |
| Molybdenum    | • Enzyme production | • Beans and peas  
• Nuts  
• Whole grains | 75 mcg |
| Phosphorus    | • Acid-base balance  
• Bone formation  
• Energy production and storage  
• Hormone activation | • Beans and peas  
• Dairy products  
• Meats  
• Nuts and seeds  
• Poultry  
• Seafood  
• Whole grain, enriched, and fortified cereals and breads | 1,000 mg |
| Potassium     | • Blood pressure regulation  
• Carbohydrate metabolism  
• Fluid balance  
• Growth and development  
• Heart function  
• Muscle contraction  
• Nervous system function  
• Protein formation | • Bananas  
• Beets  
• Juices (e.g., carrot, pomegranate, prune, orange, and tomato)  
• Milk  
• Oranges and orange juice  
• Potatoes and sweet potatoes  
• Prunes and prune juice  
• Spinach  
• Tomatoes and tomato products  
• White beans  
• Yogurt  
• Whole grain, enriched, and fortified cereals and breads | 3,500 mg |
| Selenium      | • Antioxidant  
• Immune function  
• Reproduction  
• Thyroid function | • Eggs  
• Enriched pasta and rice  
• Meats  
• Nuts (e.g., Brazil nuts) and seeds  
• Poultry  
• Seafood  
• Whole grains | 70 mcg |

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<th>WHAT IT DOES</th>
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</tr>
</thead>
</table>
| Sodium  | • Acid-base balance  
         | • Blood pressure regulation  
         | • Fluid balance  
         | • Muscle contraction  
         | • Nervous system function  | • Breads and rolls  
         | • Cheese (natural and processed)  
         | • Cold cuts and cured meats (e.g., deli or packaged ham or turkey)  
         | • Mixed meat dishes (e.g., beef stew, chili, and meat loaf)  
         | • Mixed pasta dishes (e.g., lasagna, pasta salad, and spaghetti with meat sauce)  
         | • Pizza  
         | • Poultry (fresh and processed)  
         | • Sandwiches (e.g., hamburgers, hot dogs, and submarine sandwiches)  
         | • Savory snacks (e.g., chips, crackers, popcorn, and pretzels)  
         | • Soups  
         | • Table salt  | 2,400 mg |
| Zinc    | • Growth and development  
         | • Immune function  
         | • Nervous system function  
         | • Protein formation  
         | • Reproduction  
         | • Taste and smell  
         | • Wound healing  | • Beans and peas  
         | • Beef  
         | • Dairy products  
         | • Fortified cereals  
         | • Nuts  
         | • Poultry  
         | • Seafood (e.g., clams, crabs, lobsters, oysters)  
         | • Whole grains  | 15 mg |

* The Daily Values are the amounts of nutrients recommended per day for Americans 4 years of age or older.
Understanding and Using the Nutrition Facts Label

The Nutrition Facts Label found on packaged foods and beverages is your daily tool for making informed food choices that contribute to healthy lifelong eating habits. Explore it today and discover the wealth of information it contains!

Serving Size

Serving Size is based on the amount of food that is customarily eaten at one time. All of the nutrition information listed on the Nutrition Facts Label is based on one serving of the food. When comparing calories and nutrients in different foods, check the serving size in order to make an accurate comparison.

Servings Per Container

• Servings Per Container shows the total number of servings in the entire food package or container. One package of food may contain more than one serving.
• If a package contains two servings and you eat the entire package, you have consumed twice the amount of calories and nutrients listed on the label.

Calories

Calories refers to the total number of calories, or "energy," supplied from all sources (fat, carbohydrate, protein, and alcohol) in one serving of the food. To achieve or maintain a healthy weight, balance the number of calories you consume with the number of calories your body uses.

As a general rule:

- 100 calories per serving is moderate
- 400 calories per serving is high

Calories from Fat

Calories from Fat are not additional calories, but are fat’s contribution to the total number of calories in one serving of the food.
• “Fat-free” doesn’t mean “calorie-free.” Some lower fat food items may have as many calories as the full-fat versions.

% Daily Value

Percent Daily Value (%DV) shows how much of a nutrient is in one serving of the food. The %DV column doesn’t add up vertically to 100%. Instead, the %DV is the percentage of the Daily Value (the amounts of key nutrients recommended per day for Americans 4 years of age and older) for each nutrient in one serving of the food.

As a general rule:

- 5% DV or less of a nutrient per serving is low
- 20% DV or more of a nutrient per serving is high

Footnote with Daily Values

Some of the %DVs are based on a 2,000 calorie daily diet. However, your Daily Values may be higher or lower depending on your calorie needs, which vary according to age, gender, height, weight, and physical activity level. Check your calorie needs at http://www.choosemyplate.gov.
• If there is enough space available on the food package, the Nutrition Facts Label will also list the Daily Values and goals for some key nutrients. These are given for both a 2,000 and 2,500 calorie daily diet.

Nutrients

The Nutrition Facts Label can help you learn about and compare the nutrient content of many foods in your diet. Use it to choose products that are lower in nutrients you want to get less of and higher in nutrients you want to get more of.

Nutrients to get less of – get less than 100% DV of these nutrients each day: saturated fat, trans fat, cholesterol, and sodium. (Note: trans fat has no %DV, so use the amount of grams as a guide)

Nutrients to get more of – get 100% DV of these nutrients on most days: dietary fiber, vitamin A, vitamin C, calcium, and iron.

http://www.fda.gov/nutritioneducation
Fruits
- Consume at least half of your daily fruit choices as whole fruits (such as fresh, frozen, cooked, dried, or canned in 100% fruit juice).
- Choose 100% fruit juice instead of sugar-sweetened beverages (such as energy drinks, flavored waters, fruit drinks, soft drinks, and sports drinks).
- Try fruit as snacks, salads, side dishes, and desserts.

Vegetables
- Eat more colorful vegetables (such as fresh, frozen, canned, and dried) and 100% vegetable juices.
- Buy frozen (without butter or sauce) or low sodium or no-salt-added canned vegetables.
- Try vegetables as snacks, salads, and side dishes and incorporate vegetables into main dishes.

Grains
- Consume at least half of your total grain choices as whole grains (such as whole wheat, whole oats, and brown rice). Whole grains are a source of important vitamins and minerals and are typically high in fiber, too.
- Switch from refined to whole grain versions of commonly consumed foods (such as breads, cereals, pasta, and rice).
- Consume at least half of your daily fruit choices as whole fruits (such as fresh, frozen, cooked, dried, or canned in 100% fruit juice).

Dairy
- Substitute fat-free (skim) or low-fat (1%) dairy products (such as cheese, milk, and yogurt), or fortified soy beverages for regular/full-fat (whole) dairy products.
- Limit dairy desserts, especially those high in calories, saturated fat, and added sugars (such as ice cream, other frozen desserts, and puddings).

Protein
- Eat a variety of protein foods, such as beans and peas, eggs, fat-free (skim) or low-fat (1%) dairy products, lean meats and poultry, seafood (fish and shellfish), soy products, and unsalted nuts and seeds.
- Choose seafood and plant sources of protein (such as beans and peas, soy products, and unsalted nuts and seeds) in place of some meats and poultry.
- Add beans or peas to salads, soups, and side dishes, or serve them as a main dish.
- Snack on a small handful of unsalted nuts or seeds rather than chips or salty snack foods.

Saturated Fat, Sodium, and Sugars
- Choose fresh meats, poultry, and seafood, rather than processed varieties.
- Switch from stick margarine to soft margarine (liquid, tub, or spray).
- Look for light, low sodium, reduced sodium, or no-salt-added versions of packaged foods, snacks, and condiments, when available.
- Limit desserts, savory snacks, and sweets (such as cakes, chips, candies, cookies, crackers, ice cream, and microwave popcorn).
- Consume smaller portions of foods and beverages that are higher in saturated fat, sodium, and sugars, or consume them less often.

Helpful Meal Preparation Tips
- Try baking, broiling, grilling, or steaming. These cooking methods do not add extra fat.
- Trim or drain fat from meats before or after cooking and remove poultry skin before cooking or eating.
- Cook and bake with liquid oils (such as canola and olive oil) instead of solid fats (such as butter, lard, and shortening).
- Prepare your own food when you can and limit packaged sauces, mixes, and “instant” products (including flavored rice, instant noodles, and ready-made pasta).
- Limit the amount of salt and sugar you add when cooking, baking, or eating.
- Flavor foods with herbs and spices and no-salt seasoning blends instead of salt.
- Rinse sodium-containing canned foods, such as tuna, vegetables, and beans before eating.
- When eating out, ask how your food is being prepared. You can also request to see nutrition information, which is available in many chain restaurants.
Glossary

Acid-Base Balance
In medicine, the state of having the right amount of acid and base in the blood and other body fluids. Keeping a normal acid-base balance is important for the body to work the way it should. Also called acid-base equilibrium.

Amino Acid
A large organic molecule that is the basic building block of proteins. There are 20 different amino acids that link together in various order to form proteins. The order of amino acids is determined by the genetic sequence.

Antioxidant
A substance that protects cells from the damage caused by free radicals (unstable molecules made by the process of oxidation during normal metabolism). Free radicals may play a part in cancer, heart disease, stroke, and other diseases of aging. Antioxidants include beta-carotene, lycopene, vitamins A, C, and E, and other natural and manufactured substances.

Calorie
A unit commonly used to measure energy content of foods and beverages as well as energy use (expenditure) by the body. A calorie is equal to the amount of energy (heat) required to raise the temperature of 1 gram of water 1 degree centigrade. Energy is required to sustain the body’s various functions, including metabolic processes and physical activity. Carbohydrate, fat, protein, and alcohol provide all of the energy supplied by foods and beverages.

Calorie Balance
The balance between calories consumed through eating and drinking and calories expended through physical activity and metabolic processes.

Carbohydrate, Total
One of three macronutrients in food that provide calories, or “energy” for the body. There are several types of carbohydrate: sugars, sugar alcohols, starches, and dietary fiber.

Cardiovascular Disease
Heart disease as well as diseases of the blood vessel system (arteries, capillaries, veins) that can lead to heart attack, chest pain (angina), or stroke.

Cell Membrane
The membrane surrounding a cell that separates the cell from its external environment and regulates the transport of materials entering and exiting the cell. It consists of a phospholipid bilayer and associated proteins.

Cholesterol
A natural sterol present in all animal tissues. Free cholesterol is a component of cell membranes and serves as a precursor for steroid hormones (estrogen, testosterone, aldosterone), and for bile acids. Humans are able to synthesize sufficient cholesterol to meet biologic requirements, and there is no evidence for a dietary requirement for cholesterol.

Cholesterol, Blood
Cholesterol that travels in the serum of the blood as distinct particles containing both lipids and proteins (lipoproteins). Also referred to as serum cholesterol. There are two kinds of lipoproteins: high-density lipoprotein (HDL) cholesterol and low-density lipoprotein (LDL) cholesterol.

Cholesterol, Dietary
Cholesterol found in foods of animal origin, including meat, seafood, poultry, eggs, and dairy products. Plant foods (such as beans, fruits, grains, nuts, peas, seeds, vegetables, and vegetable oils) do not contain dietary cholesterol.

Daily Value
The amount of a nutrient (in grams, milligrams, or micrograms) recommended per day for Americans 4 years of age and older. The Nutrition Facts Label lists the Daily Values for some key nutrients. These are given for both a 2,000 and 2,500 calorie daily diet.

Diabetes
A disorder of metabolism—the way the body uses digested food (specifically carbohydrate) for growth and energy. In diabetes, the pancreas either produces little or no insulin (a hormone that helps glucose, the body’s main source of fuel, get into cells), or the cells do not respond appropriately to the insulin that is produced, which causes too much glucose to be released in the blood. The three main types of diabetes are type 1, type 2, and gestational diabetes. If not controlled, diabetes can lead to serious complications.
Dietary Approaches to Stop Hypertension (DASH) Eating Plan

An eating plan designed to increase intake of foods expected to lower blood pressure while being heart healthy and meeting nutrient recommendations. It is available at specific calorie levels. It was adapted from the dietary pattern developed for the DASH research trials. In the trials, the DASH dietary pattern lowered blood pressure and low-density lipoprotein (LDL) cholesterol levels, resulting in reduced cardiovascular disease risk. The DASH Eating Plan is low in saturated fats and rich in potassium, calcium, and magnesium, as well as dietary fiber and protein. It also is lower in sodium than the typical American diet, and includes menus with two levels of sodium, 2,300 and 1,500 mg per day. It meets the Dietary Reference Intakes for all essential nutrients and stays within limits for overconsumed nutrients, while allowing adaptable food choices based on food preferences, cost, and availability.

Energy Drink

A beverage that contains caffeine as an ingredient, along with other ingredients, such as taurine, herbal supplements, vitamins, and added sugars. It is usually marketed as a product that can improve perceived energy, stamina, athletic performance, or concentration.

Enrichment

The addition of specific nutrients (i.e., iron, thiamin, riboflavin, and niacin) to refined grain products in order to replace losses of the nutrients that occur during processing. Enrichment of refined grains is not mandatory; however, those that are labeled as enriched (e.g., enriched flour) must meet the standard of identity for enrichment set by FDA. When cereal grains are labeled as enriched, it is mandatory that they be fortified with folic acid.

Enzyme

A protein that speeds up chemical reactions in the body.

Fast Food

Foods designed for ready availability, use, or consumption and sold at eating establishments for quick availability or take-out. Fast food restaurants also are known as quick-service restaurants.

Fat, Monounsaturated

Fatty acids that have one double bond and are usually liquid at room temperature. Plant sources rich in monounsaturated fats include vegetable oils (e.g., canola, olive, high oleic safflower and sunflower), as well as nuts.

Fat, Polyunsaturated

Fatty acids that have two or more double bonds and are usually liquid at room temperature. Primary sources are vegetable oils and some nuts and seeds. Polyunsaturated fats provide essential fats such as n-3 and n-6 fatty acids.

Fat, Saturated

Fatty acids that have no double bonds. Saturated fats are usually solid at room temperature. Major sources include animal products (e.g., meats and dairy products) and tropical oils (e.g., coconut and palm oils).

Fat, Solid

Fats that are usually not liquid at room temperature. Solid fats are found in animal foods, except for seafood, and can be made from vegetable oils through hydrogenation. Some tropical oil plants, such as coconut and palm, are considered as solid fats due to their fatty acid composition. Solid fats contain more saturated fats and/or trans fats than liquid oils (e.g., soybean, canola, and corn oils), with lower amounts of monounsaturated or polyunsaturated fatty acids. Common fats considered to be solid fats include: butter, beef fat (tallow), chicken fat, pork fat (lard), shortening, coconut oil, palm oil and palm kernel oil. Foods high in solid fats include: full-fat (regular) cheeses, creams, whole milk, ice cream, marbled cuts of meats, regular ground beef, bacon, sausages, poultry skin, and many baked goods made with solid fats (such as cookies, crackers, doughnuts, pastries, and croissants).

Fat, Total

One of three macronutrients in food that provide calories, or “energy,” for the body. There are two types of fat: saturated and unsaturated.

Fat, Trans

Unsaturated fatty acids that are structurally different from the unsaturated fatty acids that occur naturally in plant foods. Sources of trans fat include partially hydrogenated vegetable oils used in processed foods (e.g., desserts, microwave popcorn, frozen pizza, some margarines, and coffee creamer). Trans fats also are present naturally in foods that come from ruminant animals (e.g., cattle and sheep), such as dairy products, beef, and lamb.

Fiber, Dietary

Dietary fiber consists of non-digestible carbohydrates and lignin that are intrinsic and intact in plants (i.e., the fiber naturally occurring in foods).
Food Groups

A method of grouping similar foods for descriptive and guidance purposes. Food groups are defined as vegetables, fruits, grains, dairy, and protein foods. Some of these groups are divided into subgroups, such as dark-green vegetables or whole grains, which may have intake goals or limits. Foods are grouped within food groups based on their similarity in nutritional composition and other dietary benefits. For assignment to food groups, mixed dishes are disaggregated into their major component parts.

Fortification

The deliberate addition of one or more essential nutrients to a food, whether or not it is normally contained in the food. Fortification may be used to prevent or correct a demonstrated deficiency in the population or specific population groups; restore naturally occurring nutrients lost during processing, storage, or handling; or to add a nutrient to a food at the level found in a comparable traditional food. When cereal grains are labeled as enriched, it is mandatory that they be fortified with folic acid.

Fruit, Whole

All fresh, frozen, canned, and dried fruit but not fruit juice.

Glucose

A simple form of sugar that acts as the body’s fuel. It is produced when foods are metabolized in the digestive system and carried by the blood to cells for energy.

Grain, Refined

Grains and grain products with the bran and germ removed; any grain product that is not a whole-grain product. Many refined grains are low in fiber but enriched with thiamin, riboflavin, niacin, and iron, and fortified with folic acid.

Grain, Whole

Grains and grain products made from the entire grain seed, usually called the kernel, which consists of the bran, germ, and endosperm. If the kernel has been cracked, crushed, or flaked, it must retain the same relative proportions of bran, germ, and endosperm as the original grain in order to be called whole grain. Many, but not all, whole grains are also sources of dietary fiber.

Health

A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

Hormones

Chemicals produced by glands in the body and circulated in the bloodstream. Hormones control the actions of certain cells or organs.

Hypertension

A condition, also known as high blood pressure, in which blood pressure remains elevated over time. Hypertension makes the heart work too hard, and the high force of the blood flow can harm arteries and organs, such as the heart, kidneys, brain, and eyes. Uncontrolled hypertension can lead to heart attacks, heart failure, kidney disease, stroke, and blindness. Prehypertension is defined as blood pressure that is higher than normal but not high enough to be defined as hypertension.

Ingredient List

The ingredient list on a food package is usually located near the name of the food’s manufacturer and often below the Nutrition Facts Label. It shows each ingredient in a food by its common or usual name in descending order by weight. The ingredient with the greatest contribution to the product weight is listed first, and the ingredient contributing the least by weight is listed last.

Macronutrient

A dietary component that provides energy. Macronutrients include proteins, fats, carbohydrates, and alcohol.

Meats and Poultry

Foods that come from the flesh of land animals (e.g., all forms of beef, pork, lamb, veal, goat, and non-bird game) and birds (e.g., all forms of chicken, turkey, duck, geese, guineas, and game birds). Organs (such as liver) are also considered to be meat or poultry.

Meats and Poultry, Lean

Any meat or poultry that contains less than 10 g of fat, 4.5 g or less of saturated fat, and less than 95 mg of cholesterol per 100 g and per labeled serving size, based on USDA definitions for food label use. Examples include 95% lean cooked ground beef, beef top round steak or roast, beef tenderloin, pork top loin chop or roast, pork tenderloin, ham or turkey deli slices, skinless chicken breast, and skinless turkey breast.

Meats and Poultry, Processed

All meat or poultry products preserved by smoking, curing, salting, and/or the addition of chemical preservatives. Processed meats and poultry include all types of meat or poultry sausages (e.g., bologna, frankfurters, luncheon meats and loaves, sandwich spreads, chorizo, kielbasa, pepperoni, salami, and Vienna and summer sausages), bacon, smoked or cured ham or pork shoulder, corned beef, pastrami, pig’s feet, beef jerky, marinated chicken breasts, and smoked turkey products.
Glossary

Metabolism

The set of chemical reactions that occur in living organisms in order to maintain life, and refers to the way cells chemically change food so that it can be used to store or use energy and make the proteins, fats, and sugars needed by the body.

Micronutrient

An essential nutrient, such as a trace mineral or vitamin that is required by an organism in smaller amounts. All nutrients other than proteins, carbohydrates, fats, and water (macronutrients) are micronutrients.

Minerals

Inorganic substances that are required by the body in relatively small amounts (also called micronutrients) for normal growth and activity.

Mixed Dishes

Savory food items eaten as a single entity that include foods from more than one food group. These foods often are mixtures of grains, protein foods, vegetables, and/or dairy. Examples of mixed dishes include burgers, sandwiches, tacos, burritos, pizzas, macaroni and cheese, stir-fries, spaghetti and meatballs, casseroles, soups, egg rolls, and Caesar salad.

Nutrient

A substance in food that contributes to growth and health; nutrients provide energy, cell building and structural materials, and agents that regulate body chemistry. Nutrients include proteins, fats, carbohydrates, vitamins, minerals, and water.

Nutrient-Dense

A characteristic of foods and beverages that provide vitamins, minerals, and other substances that contribute to adequate nutrient intakes or may have positive health effects, with little or no saturated fats, added sugars, refined starches, and sodium. Ideally, these foods and beverages also are in forms that retain naturally occurring components, such as dietary fiber. All vegetables, fruits, whole grains, seafood, eggs, beans and peas, unsalted nuts and seeds, fat-free and low-fat dairy products, and lean meats and poultry—when prepared with little or no added saturated fats, sugars, refined starches, and sodium—are nutrient-dense foods. These foods contribute to meeting food group recommendations within calorie and sodium limits. The term “nutrient dense” indicates the nutrients and other beneficial substances in a food have not been “diluted” by the addition of calories from added saturated fats, sugars, or refined starches, or by the solid fats naturally present in the food.

Nutrient, Essential

A vitamin, mineral, fatty acid, or amino acid required for normal body functioning that either cannot be synthesized by the body at all, or cannot be synthesized in amounts adequate for good health, and thus must be obtained from a dietary source. Other food components, such as dietary fiber, while not essential, also are considered to be nutrients.

Nutrient of Concern

Nutrients that are overconsumed or underconsumed and current intakes may pose a substantial public health concern. Data on nutrient intake, corroborated with biochemical markers of nutritional status where available, and association with health outcomes are all used to establish a nutrient as a nutrient of concern. Underconsumed nutrients, or “shortfall nutrients,” are those with a high prevalence of inadequate intake either across the U.S. population or in specific groups, relative to expert group standards. Overconsumed nutrients are those with a high prevalence of excess intake either across the population or in specific groups, relative to expert group standards.

Obesity

A condition marked by an abnormally high, unhealthy amount of body fat.

Oils

Fats that are liquid at room temperature. Oils come from many different plants and some fish. Some common oils include canola, corn, olive, peanut, safflower, soybean, and sunflower oils. A number of foods are naturally high in oils such as nuts, olives, some fish, and avocados.

Foods that are mainly made up of oil include mayonnaise, certain salad dressings, and soft (tub or squeeze) margarine with no trans fats. Oils are higher in monounsaturated or polyunsaturated fats, and lower in saturated fats than solid fats. A few plant oils, termed tropical oils (including coconut oil, palm oil, and palm kernel oil), are high in saturated fats and for nutritional purposes should be considered as solid fats. Partially hydrogenated oils that contain trans fats should also be considered as solid fats for nutritional purposes.

Percent Daily Value

The Percent Daily Value (%DV) on the Nutrition Facts Label shows how much of a nutrient is in one serving of the food. The %DVs are based on the Daily Values for key nutrients, which are the amounts (in grams, milligrams, or micrograms) of nutrients recommended per day for Americans 4 years of age and older. The %DV is the percentage of the Daily Value for each nutrient in one serving of the food.
**Glossary**

**Physical Activity**
Physical Activity refers to any bodily movement produced by the contraction of skeletal muscle that increases energy expenditure above a basal level; generally refers to the subset of physical activity that enhances health.

**Portion Size**
The amount of a food served or consumed in one eating occasion. A portion is not a standardized amount, and the amount considered to be a portion is subjective and varies.

**Protein**
One of three macronutrients in food that provide calories, or “energy,” for the body. Proteins are composed of amino acids and are a major functional and structural component of every animal cell.

**Serving Size**
Serving Size on the Nutrition Facts Label is the amount of food that is customarily eaten at one time and is determined based on the Reference Amounts Customarily Consumed (RACC) for foods that have similar dietary usage, product characteristics, and customarily consumed amounts for consumers to make “like product” comparisons.

**Sodium**
A mineral and an essential nutrient needed by the human body in relatively small amounts (provided that substantial sweating does not occur). Sodium is important for many body processes, such as fluid balance, muscle contraction, and nervous system function. Sodium is primarily consumed as salt (sodium chloride).

**Starch**
Many glucose units linked together into long chains. Examples of foods containing starch include beans and peas (e.g., garbanzo beans, kidney beans, lentils, and split peas), grains (e.g., barley, brown rice, corn, oats, and wheat), and vegetables (e.g., carrots and potatoes).

**Sugar Alcohols**
A type of carbohydrate that chemically has characteristics of both sugars and alcohols. Sugar alcohols are found naturally in small amounts in a variety of fruits and vegetables and are also commercially produced from sugars and starch. Commercially produced sugar alcohols are added to foods as reduced-calorie sweeteners and are found in many sugar-free and reduced-sugar products.

**Sugars**
Composed of one unit (a monosaccharide, such as glucose or fructose) or two joined units (a disaccharide, such as lactose or sucrose). Sugars include those occurring naturally in foods and beverages and those added to foods and beverages during processing and preparation.

**Sugars, Added**
Syrups and other caloric sweeteners used as a sweetener in other food products. Naturally occurring sugars such as those in fruit or milk are not added sugars. Added sugars are included on the ingredient list on food and beverage packages. Specific examples of added sugars that can be listed as an ingredient include: brown sugar, corn sweetener, corn syrup, dextrose, fructose sweetener, fruit juice concentrates, glucose, high-fructose corn syrup, honey, invert sugar, lactose, maltose, malt syrup, maple syrup, molasses, pancake syrup, raw sugar, sucrose, trehalose, and turbinado sugar.

**Sugar-Sweetened Beverages**
Liquids that are sweetened with various forms of added sugars. These beverages include, but are not limited to, soda (regular, not sugar-free), fruitades, sports drinks, energy drinks, sweetened waters, and coffee and tea beverages with added sugars.

**Variety**
A diverse assortment of foods and beverages across and within all food groups and subgroups selected to fulfill the recommended amounts without exceeding the limits for calories and other dietary components. For example, in the vegetables food group, selecting a variety of foods could be accomplished over the course of a week by choosing from all subgroups, including dark green, red and orange, legumes (beans and peas), starchy, and other vegetables.

**Vitamins**
Organic substances that are required by the body in relatively small amounts (also called micronutrients) for normal growth and activity.